

REMARKS

In the Claims:

Claims 1-19 are pending in this application. Claims 4, 5, 14-16, and 18 have been withdrawn from prosecution based on a restriction requirement. Claims 1-3, 6-13, and 17 were rejected by the Examiner. Claims 1, 2, 4, 8, and 17 are amended. Claim 19 is new. Support for the new claims and amendments are found throughout the specification and the drawings. In view of the following amendments and remarks, Applicants respectfully request reconsideration of the application.

I. Rejections under 35 U.S.C. § 103

Claims 1, 2, 6, 8, 13, and 17 were rejected under 35 U.S.C. § 103(a) as being obvious U.S. patent number 6,035,757 to Caluori ("Caluori") in view of PCT application number WO 99/02310 to Van Osenbruggen ("Van Osenbruggen"), and U.S. patent number 6,153,957 to Takano ("Takano"). Applicants respectfully traverse these rejections.

Obviousness requires some suggestion or motivation to combine the references. One skilled in the art would not have been motivated to combine the Caluori with Van Osenbruggen and Takano. Caluori discloses a laser that is mounted on the rotor of a saw and is powered from a battery located on the rotor. Van Osenbruggen discloses a plurality of embodiments that feature tools with lights, although none of the lights are located on a rotating component of the tool, nor does Van Osenbruggen suggest that this is possible.

Takano discloses the use of a generator with a stator that is capable of generating electricity to power external loads. The Applicant respectfully disagrees with the Examiner's characterization of the Takano machine as an "arbor type generator." Office Action of June 22, 2005, p. 3, line 6. The Examiner is mistaken in this characterization to the extent that the Examiner's statement was made to assert that the Takano machine can generate electrical current on the arbor, or rotor, of the machine. In contrast to the Examiner's characterization, Takano does not disclose or suggest any

structure to produce electrical current on a rotor to provide power to components located on the rotor. Indeed, the Takano machine would have to be dramatically altered to produce electric current on the rotor.

Specifically, Takano discloses a machine with a stator or armature (13) that include a plurality of cores (18), with each of the cores (18) encircled by an armature winding (23). The armature windings are connected with an external power source through a terminal plate (24) and electrical cables. When the machine is operated as a motor, three phase electrical current is provided to the armature through the terminal plate. When the machine is operated as a generator, electric current is produced in the armature windings and is supplied to an external load through the terminal plate and electrical cables. See col. 3, ll. 7-27. Takano states that the rotor includes "a plurality of generally arcuately-shaped permanent magnets 31." Col. 3, ll. 48-50. Takano does not disclose or suggest the use of any electrical connections within the rotor as is required to generate electricity on the rotor. Indeed, the structure of the Takano machine would have to be significantly altered to produce usable electric current in the rotor, including the placement of poles and windings on the rotor to replace the disclosed permanent magnets, which would dramatically alter the operation of the Takano machine. MPEP § 2143.02.

Because one of skill in the art would not have combined the disclosure of Caluori (which provides a light on a rotor that is powered from a battery on the rotor), with Van Osenbruggen and Takano (which only rationally teaches generating power on a stator for external use), the Applicant submits that the cited references cannot be properly combined to reject the claims of this application, and the Examiner's combination of these references could not have been made without the improper use of hindsight. MPEP § 2145.

Even if Caluori, Van Osenbruggen, and Takano could be properly combined, this combination does not disclose all of the limitations of independent claims 1, 8, 17, and 19. Specifically, none of Caluori, Van Osenbruggen or Takano disclose that power is generated on the spindle with no electrical connection with the non-rotating part of the saw.

While Caluori discloses a laser light rotatably mounted to the spindle of a tool, Caluori only discloses a battery placed on the rotor and electrically connected with the light. Caluori does not disclose or suggest any other method or structure to supply power to the light, let alone constructing a generator to produce current in the rotor. As discussed above, the lights in Van Osenbruggen are located on a non-rotating portion of a tool, and the power generated by the machine in Takano provides current to loads connected to the stator, not the rotor. Takano does not disclose the generation of current for use with a load on the spindle, or rotor, with no electrical connections between the spindle and the non-rotating portion of the tool. Because the cited references do not disclose all of the limitations of the independent claims, the Examiner has not established a *prima facie* case of obviousness. Claims 2, 6, and 13 depend from the independent claims in the case and are by definition allowable. Accordingly, Applicants respectfully request that the obviousness rejection of claims 1, 2, 6, 8, 13, and 17 be withdrawn and that new claim 19 be allowed.

Claims 3, 7, and 9-12 were rejected under 35 U.S.C. § 103(a) as being obvious over Caluori in view of Van Osenbruggen and Takano as applied to reject claims 1, 2, 6, 8, 13, and 17, in further view of U.S. patent number 3,555,325 to Inariba ("Inariba"). The Examiner has provided no motivation to combine Caluori, Van Osenbruggen and Takano with Inariba and the Inariba does not disclose that that power is generated on the spindle with no electrical connection with the non-rotating part of the saw, let alone the limitations of claims 3, 7, and 9-12.

The addition of Inariba is improper because Inariba is directed to a synchronous motor with an external AC current being applied to the rotor, not a generator that produces current on the rotor. One of skill in the art would not have looked to AC synchronous motors when designing a power tool with a light on a rotor of a tool powered by current generated on the rotor. Specifically, the Inariba synchronous motor requires significant structure to supply an AC current to the rotor from the non-rotating portion of the tool such that it is not suitable for a machine that generates electric current in the rotor for use on the rotor itself without any electrical connections with a non-rotating portion of the tool. Although Inariba does not specifically discuss this, one of skill in the art would understand that Inariba must include a plurality of slip rings and

brushes (or other structure known to transfer electric current to a rotating member) to transfer an AC current from an external source (i.e. one that is not on the rotor) to the rotor to allow the poles on the rotor to interact with the permanent magnets on the stator to produce torque to rotate the rotor shaft. The claimed design requires current to be generated on the rotor without any electrical connections to the stator, or non rotating portions of the tool. Therefore, the Examiner improperly combined Caluori, Van Osenbruggen, and Takano with Inariba, because one of skill in the art would not have done so without the improper use of hindsight.

Even if all of the above references could be properly combined, they do not disclose all of the limitations of claims 1, 8, 17, and 19 let alone dependent claims 3, 7, and 9-12. Specifically, because Inariba is a synchronous AC motor, which operates with an AC excitation current applied to the rotor windings from a non rotating portion of the machine, Inariba operates oppositely from a generator that produces current in rotor windings for use in the rotor when the rotor is rotated by a prime mover. Because the combination of references cited by the Examiner does not disclose all of the limitations of independent claims 1 and 8, the combination cannot render claims 3, 7, and 9-12 obvious. Therefore, Applicants respectfully request that the rejections of claims 3, 7, and 9-12 be withdrawn.

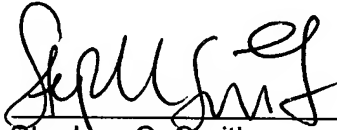
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SUMMARY

Claims 1-3, 6-13, 17 and 19 are patentable. Applicants respectfully request the Examiner grant early allowance of this application. The Examiner is invited to contact the undersigned attorney for the Applicants via telephone if such communication would expedite this application.

Respectfully submitted,

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